RESEARCH HIGHLIGHTS

January 2004 Socio-economic Series 04-006

HOUSE PRICES, BORROWING AGAINST HOME EQUITY, AND CONSUMER EXPENDITURES

Overview

The focus of the study is to examine the link between house prices, borrowing against home equity, and consumer spending in Canada in the early 2000s. Borrowing against home equity, or home equity withdrawal, means turning home equity into financial capital by taking out a loan secured by the home without selling it. The study is motivated by the idea that strength in house prices during the economic downturn of 2001 has helped sustain consumer spending through home equity withdrawals. In the U.S., where house prices rose considerably from 1995 to 2002, many homeowners refinanced their mortgages in order to borrow more. The study examines whether something similar has happened in Canada.

The study gives an estimate of the amount of home equity in Canada, and briefly describes developments in the housing market and in the market for loans to households. Two estimates of borrowing against home equity are reported and reviewed. Information from household surveys about uses of funds borrowed against home equity are reported for both Canada and the United States. In the full study, a more detailed set of estimates is provided for the United States.

The study then reviews recent studies of wealth effects on consumption and presents a detailed listing of the ways in which changes in wealth affect spending and saving. The study compares estimates of the size of wealth effects from recent studies and concluded that the range of estimates is too wide to allow application to recent developments in Canada. Thus, the study presents no estimate of the extent to which house prices have sustained consumption in the past several years.

Finally, the study considers how home equity withdrawal can be monitored and analysed. It argues that further analysis of the link between house prices and consumer expenditures through borrowing against home equity is not possible without more information gathered through surveys and enhanced reporting by financial institutions. It considers the current state of knowledge about wealth effects on consumption unsatisfactory and suggests a concerted research effort.

Throughout the study a comparison between Canada and the U.S. is made to highlight similarities and differences in recent developments, and to help identify data requirements in Canada. In the full study, some discussion is given to the concern that there is a house price bubble in the U.S. and the possible fallouts.

House prices and borrowing against home equity

Recent developments in the Canadian housing market

In the last four years, from the first quarter of 1999 to the first quarter of 2003, Multiple Listing System (MLS®) prices increased by 27.5 per cent, with most of the gains in the past 24 months. This is more than twice the increase in the Consumer Price Index (CPI) of 12.0 per cent, for a real gain of 13.9 per cent. In total, the value of all homes owned by their occupants increased by 34 per cent or $380 billion during the past four years, partly due to an increase in the number of homeowners, but mostly as a result of price changes. As of early 2003, the average

CMHC SCHL

HOME TO CANADIANS

Canada

homeowner is about $24,000 richer today than four years ago, purely as a result of changes in the real price of the family home.

Recent growth of mortgage and consumer credit in Canada

Mortgage borrowing activity accelerated during the past four years, and the stock of residential mortgage debt was 25 per cent higher at the end of the first quarter of 2003 than four years earlier. Mortgage debt did not change as much as the value of the owner-occupied stock of housing (34%) that occurred during these same four years. This change in the stock of debt may reflect activity and prices in the housing market, and does not clearly point to increased extraction of home equity for consumption and other purposes.

Other forms of borrowing by households, however, increased more rapidly, and the share of mortgages in total household debt fell to less than 70 per cent. Consumer credit increased by 41 per cent over four years, driven by very large increases in lines of credit, and including home equity lines of credit (i.e., credit secured by the family home). This type of credit appears to be replacing personal loans and other forms of consumer credit, if not credit card debt, which also increased sharply in the past several years.

Total household debt is now larger than personal disposable income. However, due to lower interest rates, interest payments on household debt have declined in relation to disposable income, from 8.1 per cent in early 1999 to 7.8 per cent in 2002.

While household debt has remained below the value of the owner-occupied housing stock in the past two years, the very high rates of increase for lines of credit suggest that borrowing against home equity for purposes other than financing acquisition or upgrading of the family residence was on the rise.

Borrowing against home equity

A combination of low interest rates, lower transaction costs and continued innovations in mortgage and consumer credit markets have contributed to the increasing use of credit backed by house values in Canada and the U.S. The paper presents two estimates of borrowing against home equity in Canada. The large difference between these estimates illustrates the data limitations and the difficulty in finding a starting point for estimating its economic impact.

The first estimate, done by CIBC World Markets (CIBC-WM), is based on information about mortgage lending activity from two commercial banks covering a good part of the residential mortgage market, and information from credit bureaux about consumer credit. It finds that homeowners borrowed $22 billion against home equity between the beginning of 2001 and April 2003, a period of more than two years[1]. The scale of this type of borrowing thus was a little over 2 per cent of GDP. The estimate has two components:

- An increase in home equity loans of $10 billion
- Refinancing of mortgages with an increase in the principal amount totalling $12 billion.

The second estimate is available from the Residential Mortgage Survey, a quarterly survey conducted by Clayton Research/Ipsos-Reid and reported in the Financial Industry Research Monitor (FIRM). The results of the March 2003 survey were used to provide, for the first time, an estimate of new borrowing against home equity. According to these new tabulations, Canadian home owners engaged in new borrowing against home equity of $33 billion in the year 2002, in the following forms:

- New home equity lines of credit of $22.2 billion
- New home equity personal loans of $5.0 billion
- Refinancing of mortgages with a larger principal amount totalling $5.5 billion.

Considering that these numbers pertain to a single year only, while the first estimates are for a period of more than two years, this second estimate is much larger than the first one. The estimates agree roughly on the size of cashing out of home equity through refinancing of mortgages ($12 billion over 2+ years versus $5.5 billion in 2002 alone). As for home equity loans, both estimates include lines of credit as well as personal loans.

The second estimate for home equity lines of credit is larger than the $11.5 billion change in the balance of lines of credit outstanding from early 2002 to 2003, as given by the Bank of Canada[2]. This may indicate that home equity lines of credit are replacing other lines of credit, or that lenders other than commercial banks are issuing much credit in this form. The FIRM estimates do not consider how long the debt is held before repayment. This is particularly important for lines of credit where the borrowing term might actually be very short. Both the FIRM and the CIBC-WM estimates are gross estimates, i.e., repayments are not netted out.

In the US, where house prices increased by 50 per cent since 1995 (30 per cent in real terms), the rate of home equity withdrawal appears to be larger than the rate in Canada. Estimates from the Federal Reserve Board and

Freddie Mac put the level of borrowing against home equity at approximating $226 billion in 2002. Using the 10-to-1 rule of thumb to correct for the difference in size and to recognize differences in measurement, activity in the U.S. is approximately twice as high as in Canada when using the CIBC-WM figures.

Home equity withdrawals and consumer expenditures

According to FIRM survey (Table 1), the main purpose of borrowing varies by type of loan. Cash-out refinancing of mortgages is used primarily for debt consolidation and renovations; almost half the personal loans backed by home equity were intended for financing the acquisition of a vehicle. Lines of credit seem to be used for all kinds of things, without any of the uses being dominant.

Consumer spending certainly is one of the main applications of the amounts borrowed: Based on the Table 1, approximately one-fifth is for purchases of vehicles, and another seven to eight per cent for daily spending. The purposes "Education" and "Other" may also involve some consumer expenditure. Approximately one third of the new funds appear to go towards consumer expenditures. Renovations may come under residential construction but may also give rise to consumer expenditures, for instance if the homeowner does the work herself. Either way there is a fairly immediate impact on économic activity.

The percentages in the first three columns pertain to the share of borrowers. Columns four and five were calculated by applying the percentages in the first three columns to the amounts borrowed.

The FIRM survey data indicate that, in 2002, $10 billion or 1.6 per cent of consumer expenditures, and between $15 and $20 billion, or 1.5 to 2.0 per cent of GDP were financed by borrowing against home equity. The CIBC-WM estimate would lead to smaller numbers. However, these numbers are questionable as a measure of the impact of borrowing against home equity on economic activity, as they do not take account of repayments of loans. Households that have withdrawn home equity in the past have lower current consumption, as they have to repay these loans.

	Refinance mortgage with cash-out	Home Equity		Total	
		Line of Credit (%)	Personal Loan (%)	Amount (billions $)	Share (%)
Renovation	21	23	7	6.7	20.4
Purchase	2	18	45	6.4	19.7
Debt	58	12	18	6.8	20.7
Investment	0	9	22	3.1	9.6
Daily	0	11	0	2.5	7.5
Finance	11	5	0	1.7	5.3
Education	4	4	4	1.3	4.0
Other	5	17	2	4.2	12.8
Borrowers (thousands)	180	1,110	190	1,480	
Amounts (billions)	$5.5	$22	$5.0	$32	

Table 1 Main purposes of funds borrowed against home equity, Canada, 2002
Source: Clayton Research / Ipsos-Reid: FIRM Residential Mortgage Survey, March 2003.

In the absence of information about repayments, changes in new borrowing against home equity might be used as a basis for measuring impact on the economy. The numbers for the U.S. indicate a rather large impact in 2002. To get estimates for Canada one would need consecutive surveys by Clayton Research/Ipsos-Reid or periodic calculations by CIBC-WM. Uses of the funds should also be monitored from year to year. If incremental new borrowing is used to pay off debts, there is no impact on consumer spending and the economy. To measure the impact on the economy, a net measure of borrowing should be used, but it is not available at present.

Housing wealth and consumption

As housing wealth increases and mortgage and consumer credit backed by real estate become cheaper and easier to access in many countries, housing wealth probably has a greater influence on consumption than it used to. An increase in house prices has various effects on consumption:

1. *Realising wealth gains by selling.* Homeowners can realise a gain in the value of their house by selling it and renting, moving in with others, or buying a less expensive house.

2. *Reducing consumption to buy at higher prices.* An increase in house prices may induce actual and prospective buyers to reduce their consumption in order to increase their downpayment – a substitution effect. Buyers may also incur more debt than they would if prices were lower, leading to lower consumption in the longer run as a result of higher debt servicing payments.

3. Realising wealth by borrowing. Homeowners may cash out gains in home equity by refinancing their mortgage with an increase in principal, by means of a second mortgage, a home equity loan, or a reverse mortgage. An increase in house prices may help some homeowners overcome a liquidity constraint by increasing the amount they can borrow.

4. Repaying loans. Cash-outs of home equity need to be repaid with interest and will reduce consumption while loan payments need to be made. Alternatively, the home can be sold and the debt paid off.

5. An unrealized wealth effect. Home owners who do not sell or refinance may reduce saving and increase consumption when they consider themselves richer as a result of increased house prices.

6. Price expectations. Price increases may fuel expectations of further increases, leading to speculative investments. This may lead families to reduce consumption, or borrow more, in order to invest in a more expensive home than they otherwise would have.

7. A budget constraint effect. Higher house prices often push up rents (unless house prices increase because demand is shifting from rental to owned accommodation), decreasing the amount renters spend on other consumption items. This effect probably will take more time to be felt and has a counterpart in increased income and possibly consumption by owners of the rental dwellings.

In general, theory and econometric evidence support the idea that fluctuations in wealth due to changes in stock market values and house prices affect the level of consumer spending. This effect has become stronger as home equity values have increased and as borrowing against home equity has become more accessible and less expensive in the past two decades. In terms of the magnitude of the housing wealth impact on consumption, the empirical literature is far from unanimous about the size of the effect, about whether it is lasting or transitory, or about the relative importance of house prices and stock market values.

Monitoring and analysis of home equity withdrawals in Canada

At present, the best potential source for monitoring is the FIRM survey. The analysis done on the March 2003 survey could be repeated every quarter. In fact, this would be essential as the measure of impact should be not the level, but the difference of new loans backed by home equity. The survey could potentially be expanded to record not just new loans, but also repayment of existing loans and refinancing of home equity loans.

To ensure that data on borrowing against home equity are publicly available and of the highest quality, Statistics Canada should take over the task of surveying households about their borrowing transactions. The Survey of Labour and Income Dynamics (SLID) and the Survey of Household Spending (SHS), both of which are carried on by Statistics Canada, would seem to be suitable vehicles. Household surveys are the only vehicle for recording the uses of home equity withdrawals. The SHS would be the vehicle of choice, as the SLID does not cover assets and debts. A few questions might readily be added, although keeping in mind that response burden is an issue.

The alternative to surveying households is reporting by lenders. As there are only a limited number of lenders, and these have the necessary information in their customer records, it should be possible to obtain complete data of high quality, which would be preferable to sample data based on self-reporting by borrowers. The Bank of Canada could require lenders to report loans secured by the borrower's principal residence as subcategories of personal loans and lines of credit. Lenders could also be asked to report the volume and value of refinanced mortgages, and the incidence and amounts of cash-outs. To cover all activity, this should be required of all lenders, not just the commercial banks.

Conclusion

The study examines the effect of changes in house prices on consumer expenditures through borrowing against home equity and in total, through the wealth effect. The consultant was not able to provide definitive measures of the size and significance of these changes due to a lack of data and inconclusive econometric work to date. More specifically, the study found that:

- Borrowing against home equity is more common than it used to be, both through refinancing of mortgages with a cash-out and through home equity loans and lines of credit. No precise, comprehensive data on this type of borrowing are available in Canada.

- Two estimates of borrowing against home equity have been produced in Canada. They do not agree, in particular regarding home equity lines of credit, and the higher estimate in particular is not considered suitable for estimating economic impacts. Both estimates measure gross new borrowing and ignore repayments and debt service costs. A net measure would be more appropriate for gauging the effect of borrowing against home equity on consumption, or, failing this, the first difference of gross new borrowing.

- Survey data for Canada and the US suggest that about half of newly borrowed funds are used for consumer expenditures and residential construction. The other half goes towards debt consolidation and financial investments with a very limited effect on economic activity. If the allocation of funds is stable over time – and US data suggests it recently has been – then the impact of changes in borrowing against home equity on the level of economic activity is about one half of the amount borrowed. In the U.S. in 2002, it may have boosted GDP by about 1 per cent.

- The level of borrowing against home equity is influenced not only by house prices, but also by interest rates, transaction costs and availability of this type of credit. Major changes have occurred in the cost and availability of credit backed by home equity in the past few decades in both Canada and the US.

- House prices affect consumption not just through borrowing against home equity, but in a variety of ways that would be difficult to measure directly. There is an overall wealth effect of house prices on consumption, which has been examined in a number of recent studies in Canada and OECD countries. The thrust of this literature is that a housing wealth effect exists and has become stronger in the past decade or two. Most studies find that housing has a stronger wealth effect on consumption than the stock market. However, the studies are far from agreed on the size of this effect, and on whether it is transitory or lasting.

- House prices in Canada have increased in recent years, but much less so than in the US. There appears to be a potentially unsustainable, speculative house price bubble in the US that may have deleterious effects on the US economy if it suddenly bursts. There is no similar basis for such a concern in Canada.

- It is clear that increasing house prices have helped sustain consumer expenditures in Canada in the past two years to some non-trivial extent. Given the information available and the state of economic analysis, this study does not provide an estimate of the size of this effect.

Endnotes

[1] CIBC World Markets Research: "Banking on the House", June 19, 2003.
[2] Source: Bank of Canada: Weekly Financial Statistics, June 6, 2003.

Project Managers: Rachid Aqdim, Anne Rensonnet

Research Consultant: Infometrica Ltd.

Housing Research at CMHC

Under Part IX of the National Housing Act, the Government of Canada provides funds to CMHC to conduct research into the social, economic and technical aspects of housing and related fields, and to undertake the publishing and distribution of the results of this research.

This fact sheet is one of a series intended to inform you of the nature and scope of CMHC's research.

To find more Research Highlights plus a wide variety of information products, visit our Web site at

www.cmhc.ca

or contact:

The Canadian Housing Information Centre
Canada Mortgage and Housing Corporation
700 Montreal Road
Ottawa ON K1A 0P7

Telephone: 1 800 668-2642
FAX: 1 800 245-9274
chic@cmhc-schl.gc.ca

OUR WEB SITE ADDRESS: www.cmhc.ca

60975